An Information Network Of General Practitioners For Purposes Of Epidemiologic Surveillance In Italy.

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An information network of general practitioners (GP's) using the same clinical record software, willing to partecipate in public health surveys and to contribute yielding clinical information about their patients, was implemented with two major purposes: a) to collect suitable data from GP's; b) to promote computer's use among GP's. For the realization of the project, a group of monitoring doctors has been selected among 8.000 GP's distributed throughout Italy, who were encouraged by Janssen-Cilag to use computer applications in medicine since 1985. The first level of the network, including at the moment 110 doctors linked up in tele-processing with a mainframe computer in order to collect data and exchange information has been operative since June 1994. The GP's who participate in this level of the network are selected in such a way that their patients constitute a suitable geographical sample of the whole italian population.. A new clinical record software program has been designed specifically to meet both the requirements of epidemiologic research and the basical needs of GP's: while allowing a user-friendly approach and operational speed, it guarantees data completeness and reliability, through the definition of a Minimum Data Set (MDS) of comparable clinical information collected by standardized methods. The information belonging to the MDS, coded according to international scientific standards by means of tables of predefined codes, is requested for all patients. The data gathered through the network are used by epidemiologists and Health planners belonging to the National Institute of Health, to the Department of Epidemiology of the second University of Rome, and to the National Research Council, which is the main sponsor of the Project.

As a first example of epidemiologic use of the network, a survey on hypertension treatment was conducted, in which all 110 GP's were asked to measure the systolic and diastolic blood pressure of all patients entering their ambulatory in a week of November, 1994, and record the measurements in the clinical record, in addition to normal anamnestic findings and prescriptions. Data collected by 50 doctors were gathered through the network and centrally analyzed. No anti-hypertensive prescriptions were given to many patients with abnormal pressure levels, and an abnormal proportion of prescriptions of "heavy" drugs, which might potentially have strong side-effects, was found. The GP's were asked to participate to round tables on hypertension in one of four italian cities (the nearest to residence). Advise on the most recent trends in hypertensive treatment was given by a well-known cardiology teacher of the University of Rome. Free discussions took place among participants. A second survey involving the same 50 doctors was scheduled for November, 1995, to monitor eventual changes in prescription habits, following the panels. Data about this second round are being analyzed.

A second level of the network with the purpose of validating a model of health card using CP-8 micro-computing technology was started in 1995. Purpose of this level of the network is to explore the possibility of including in the network different levels of care providers such as specialists, hospital departments, clinical laboratories, and of experimenting with the transfer of patients' health information from the GP's archives to central health structures. This network level was implemented in two small geographic areas, one in Northern Italy and the other in the South, including overall 16 GP's equipped with a CP-8 smart card reader, driven by the same software program used in the first network level. About 6000 smart cards were distributed to selected patients with higher health care needs by the participating 16 GP's. Several health structures in the two areas were similarly equipped with work-stations running the same software, among them the pediatric and geriatric departments of local hospitals, and emergency units. Smart card use in these structures is monitored by specially trained personnel.

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